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19 April 1962

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MEMORANDUM FOR: Chief, Analysis Branch, DD/CR
FROM : Chief, Publications Staff, ORR
SUBJECT : Released of CIA/RR GM 62-4, Air Access to Berlin,
SECRET, to Foreign Governments

25X1C

1. It is requested that the attached copies of subject report be forwarded as follows:

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2. All ORR responsibilities as defined in the DDI memorandum of 13 August 1952, "Procedures for Dissemination of Finished Intelligence to Foreign Governments," as applicable to this report, have been fulfilled.

Attachments

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NEXT REVIEW DATE: 1989
AUTH: HR 70-2
DATE: 1989 REVIEWER: 095377

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GEOGRAPHIC INTELLIGENCE MEMORANDUM

CIA/RR GM 62-4
April 1962

AIR ACCESS TO BERLIN



DOCUMENT NO. 1
☐ NO CHANGE IN CLASS. ☐
☐ CLASS. CHANGED TO: TS S C, 1989
NEXT REVIEW DATE: 29/8/79
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DATE: 29/8/79 REVIEWER: 035377

CENTRAL INTELLIGENCE AGENCY
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AIR ACCESS TO BERLIN

The location of Berlin 137 miles east of the Federal Republic of Germany results in a problem of Western access during two winters. First, exposure of US, UK, and French communication lines to Communist interference; second, need for maintaining the free movement of German citizens and civilian goods between the Federal Republic of Germany and West Berlin and within Greater Berlin. Since 13 August 1961, movement within Greater Berlin has been effectively curtailed. The air corridors are the last remaining traffic arteries between West Berlin and the Federal Republic of Germany over which both civil and military traffic can now without being subjected to either Soviet or East German controls.

Historical Basis for Access to West Berlin

The position of the Western Powers in Berlin, which derives from the unconditional surrender of Germany at the end of World War II, was recognized in a 1941 agreement of the European Advisory Commission, in which the USSR as well as the Western Powers participated.* In the immediate postwar years the Allied Control Council concluded a number of quadripartite agreements governing Allied access to Berlin. On 30 March 1946, however, the Soviet authorities initiated the series of restrictions on passenger and freight movement to and from Berlin, which ultimately culminated in the Berlin blockade of 1948-49. The blockade lasted for almost 11 months. After its onset, however, the general Western rights of access were reaffirmed by the USSR in the New York and Paris Agreements of May and June 1949, respectively. In September 1953 the USSR signed a "Treaty on Friendship and Good Neighborly Relations" with the Federal Republic of Germany, which the Soviet Government "temporarily" reserved for themselves control of the traffic of the Western Powers between West Berlin and the Federal Republic of Germany. There has been no subsequent formal documentation; but, as late as 29 March 1959, Khrushchev declared that the Allies have lawful rights for their stay in Berlin.

Surface Access to Berlin via Air Access

The amount of freight moving to and from West Berlin by air under normal circumstances is only a minor portion of total traffic. Passenger traffic by air, however, has played an important role, especially in the winter, who comprised 21.4 percent of the total in 1960 and 13.1 percent in 1961. Although the share of cargo has dropped off to a mere 1.61 percent, the cargo is important for the needs of the West Berliners, especially for those whose personal safety demands that they not be subjected to either Soviet or East German demands controls.

The dependence of West Berlin on highway contact with the Federal Republic is strikingly reflected by statistics on highway traffic along routes connecting the two (see table). The average number of vehicles that passed through the Brandenburg

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	1960		1960	
	Metric Tons	Percent of Total	Metric Tons	Percent of Total
Incoming				
Highway	2,861,467	35.9	2,913,300	25.7
Rail	771,801	13.5	305,647	13.0
Water	2,309,126	29.0	2,349,394	27.6
Air	2,787,151	35.0	2,690,096	36.6
Air	6,775	0.1	5,759	0.1
Total	7,954,892	100.0	8,140,051	100.0
Outgoing				
Highway	1,177,941	52.8	1,099,819	61.6
Rail	29,147	22.8	410,996	23.9
Water	430,017	32.8	410,996	23.9
Air	9,703	0.5	8,471	0.5
Total	1,886,712	100.0	1,920,231	100.0
Passenger Traffic				
	1961		1960	
	No. of Vehicles	Passengers	No. of Vehicles	Passengers
Incoming				
Automobile	609,674	1,617,407	531,643	1,338,494
Bus	29,147	784,631	27,490	777,710
Truck	32,129	35,000	26,880	20,580
Rail	84	2,148,475	84	2,200,781
Aircraft	39,748	720,460	17,896	688,213
Outgoing				
Automobile	611,123	1,670,682	509,881	1,390,438
Bus	29,125	804,999	28,098	777,090
Truck	32,029	35,000	15,974	20,580
Rail	84	2,099,186	84	2,200,781
Aircraft	39,647	720,460	17,815	707,007

* Figure includes all rail passengers crossing border of Federal Republic, exclusive Berlin residents en route.

b. Excluding freight in reregions (117,599 in 1961; 121,778 in 1960).

shopped in each direction during a 24-hour period in 1960 was 1,344 cars, 307 trucks, 76 buses, and 37 automobiles; the over-all average was 3 vehicles per minute. In 1961, daily car traffic increased to 1,741 and bus traffic to 80.

The US, UK, and French personnel in West Berlin normally receive the bulk of their military supplies by surface transport, via one highway and one rail line. The German Lines, which is Berlin's air and water, via one rail line, with Hamburg, Bremer, and Frankfurt. Five authorized crossing points, including Hohenzollern, were established to serve the far greater civilian needs in terms of freight and passenger service between West Berlin and the Federal Republic of Germany.

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is checked through the document-checkstation crossing point and enters West Berlin via Berlin's main railroad. This is the same line that is used for military traffic. A 1945 quadripartite agreement authorizing the daily entry of 13 freight trains (including Allied military freight trains) with a maximum capacity of 800 tons each. Empty freight cars from West Berlin are routed back to the Federal Republic via Gdansk and Ostfriede-Horsel.

Civil rail passenger traffic uses the following authorized crossing points: Buchenwald, Potsdam-Gatow, Potsdam-Mariendorf, Berlin-Wilmersdorf, Berlin-Charlottenburg, Berlin-Brandenburg, Berlin-Spandau, and Berlin-Tiergarten. Trains using the last two do not go directly to Berlin, which makes a change of trains necessary.

Civil road traffic may utilize the Blanken and Ost Autobahn as well as the Hohenzollern and the Gdansk Roads. The additional highway routes to West Berlin are available -- Highway 2 from Hamburg, which crosses the border near Schleswig and enters West Berlin at Blanken, and a highway that enters East Germany north of Berlin and leads via Schwerin and Luebeck, where it joins Highway 2, to West Berlin.

Two inland waterways, the Elbe River and the Mittelland Canal, connect the Federal Republic and East Germany. Both are linked to Greater Berlin by a system of canals.

Western military and official personnel travel on documents issued by their military commanders or by their ambassadors to Bonn. Western military freight traffic is not subject to inspection. All types of civil passenger and freight traffic along surface routes, however, are subject to customs and immigration control upon entry into East Germany.

Routes of Air Access

Immediately after World War II, Western access to Berlin was governed by an informal agreement under which Western pilots on route to Berlin were to follow the railroad or Autobahn from Hanover to Berlin. During the 1945 negotiations that led to the establishment of the air corridors, the United States proposed six corridors -- the present three plus others to Copenhagen, Warsaw, and Prague. The USSR refused to consider the last three, but on 30 November 1945 the Allied Control Council approved a paper that provided for the three air corridors now in effect. The north corridor is 130 nautical miles long, the central corridor is 133 nautical miles, and the south corridor is 105 nautical miles. The paper stipulated that flights through these corridors could proceed without notice and that responsibility for drawing up safety measures and flight rules for the corridors would rest with the Air Force and the Control Council. A final agreement was concluded early in 1946, and the Berlin Air Safety Council (BASC) was established in February 1946.

Rules governing corridor flights are available in the basic document, Flight Rules for Aircraft Flying in the Air Corridors of Germany and the Berlin Corridor, dated 20 December 1946. Although the corridors are located and are specifically described in 10 places in the wide, no machine or electronic chart is given. A maximum altitude of 10,000 feet, however, is specified for the Berlin Corridor, which is defined as the area within a radius of 20 statute miles (17.4 nautical miles) of the Allied Control Authority Building in Berlin. Because this building and Tempelhof do not have identical locations, the Berlin Corridor area extends 13.2 nautical miles to the east, 15.1 nautical miles to the south, and 15 nautical miles to the north of Tempelhof Airfield. Many ground-based anti-

gational aids are available for use within the corridors, the Berlin area, and the associated terminal areas. Plans require that plans for corridor flights be filed with BASC and that aircraft carrying 15 or more passengers, however possible, call the appropriate communications station in advance to obtain clearance. Aircraft unable to receive such clearance must cross the air corridor in a "steep" landing of 30 degrees or more at a prearranged altitude. Since the Soviet planes could fly anywhere else in East Germany and since the USSR had participated in the drawing up of corridor-flight rules, the USSR is precluded from using the corridors were established for Western use and Soviet flights were adjusted so as not to interfere with Western flights. Until February 1962 the corridors were used almost exclusively by Western air craft.

Use of the air corridors is restricted to commercial and military planes of the Organization of Western Powers and is subject to procedures and regulations agreed upon by the quadripartite BASC. The Western Powers license commercial air operations in the three air corridors. Western civil and US military flights to Tempelhof are controlled by the US Air Force, and flights terminating at Tegel Airfield are controlled by the French authorities. Tegel also functions as a secondary airfield for Tempelhof, and planes landing there do not require express authorization. Gdansk Airfield is used almost exclusively for military flights and is controlled by the British.

In 1961, a total of 10,947 road-trip commercial flights were made to Berlin, or about 29 a day. The licensed commercial carriers are: PANAM, currently with 25 scheduled round trips daily using DC-8's to BSC, with 10 round trips daily using turboprop Tupolevs; and Air France, with 6 round trips daily, using Caravelles. Air France flights terminate at Tegel and the other carriers, at Tempelhof.

The number of military flights varies considerably, but US flights have probably averaged from 125 to 200 round trips per month. No estimates are available for UK and French military flights.

Western Aircraft Problems and Capabilities

In response to the 1948-49 Soviet-imposed blockade of surface transport around West Berlin, the United States and the United Kingdom conducted an airlift involving 87,477 flights and 3,380,847 tons of cargo and passengers during the 13-month period beginning in June 1948, an average of 661 flights and 5,200 tons a day. This accomplishment was far greater than had been believed possible when the airlift began.

Today, however, West Berlin has a much higher standard of living than before the 1948-49 airlift, owing largely to the influx of new industries and the expansion of old industries. To maintain the current high standards, West Berlin requires 20,000 tons of freight daily in 1961, using equipment of all types. If an aircraft became mandatory today, it obviously would not attempt to move any such volume of freight, but some of the problems that were encountered in 1948-49 have been reduced considerably. At that time the airlift was accomplished by a large number of aircraft having different performance characteristics, which resulted in problems of air-traffic control. Similar transport movements now could be met with fewer aircraft, and flights because of the availability of sufficient numbers of transport aircraft possessing far greater range capacities and more nearly uniform performance characteristics. The cumulative stages of an airlift, food and other vital necessities would be available from stockpiles established by the West Berliners to meet such an emergency. The reestablishment of an airlift capable of supporting West Berlin therefore seems technically feasible if it were not subject to Soviet interference.

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The Soviet Harassment Potential

Judging by the experience of 1948-49 and recent Soviet tactics in the air corridors, lack of interference probably could not be expected. During the 1948-49 airlift, 733 corridor incidents affected US aircraft alone.* Today the Soviets have the capability to interfere with an airlift in the corridors in a number of new ways, significant among which are Electronic Counter Measures (ECM).

The restriction of flights to corridors only 20 miles wide and the high incidence of weather unsuitable for flying by Visual Flight Rules (VFR) necessitates frequent use of Instrument Flight Rules (IFR) by corridor aircraft, a procedure subject to Soviet interference by ECM. For VFR operations the most favorable weather combination is the simultaneous occurrence of a ceiling equal to or greater than 1,500 feet and visibility equal to or greater than 3 miles at Berlin, Hamburg, and Frankfurt. The most unfavorable weather occurs from September through March. The south corridor has the lowest incidence of VFR conditions -- generally less than 19 percent of the time. The incidence of VFR conditions along the central and north corridors is higher -- as much as 23 percent of the time. Because of the high incidence of weather conditions requiring IFR, maximum reliance must be placed on navigational aids, en route and terminal.

According to recent estimates the Soviet Bloc forces in East Germany have the capability to interfere seriously with the Western electronic navigational aids and communications that are required for operation in the Berlin corridors. Although no positive association has been made between certain operational antennas and specific ECM assignments, the Soviet Bloc probably possesses the capability to intercept and jam on any frequency now utilized by Western aircraft engaged in corridor operations, either civil or military.

Five complexes in East Germany have equipment with possible jamming capability, but no jamming signals have been collected from these equipments. They are estimated to have an effective range of 30 miles against the most commonly used US navigation radar. At least five other sites in East Germany possess a capability for passive detection. Another serious problem to be neutralized is Soviet interference with Ground Control Approach (GCA) and Instrument Landing Systems (ILS) equipment used during the critical landing period.

Another form of interference with an airlift now available is masconing. "Masconing" is the name given to a deceptive type of ECM, which consists of transmitting over a powerful emitter with the same (or nearly the same) frequency and emission characteristics as a known navigational beacon. These "spoof" beacons are intended to lure aircraft off their intended paths by simulating genuine beacons located at terminal points or important turning points. Although not officially confirmed, there have been a number of incidents in which deliberate false beaconing may have been employed against US aircraft.

Soviet ECM in the air corridors may be countered by the installation of new or modified navigational equipment; by training crews in the recognition of jamming, masconing, and corridor landmarks (the latter for VFR operations); and by the adoption of new cockpit procedures. Corridor operations, however, currently do not employ enough pilots trained to cope with a hostile ECM environment nor enough adequately equipped aircraft to operate a successful airlift. If air traffic to Berlin were limited to VFR operations alone, they could not provide sufficient logistical support to fulfill the operational goal of an airlift.

* Buzzing occurred 77 times, close flying 96, flak 54, air-to-air fire 14, flares 59, radio interference 82, searchlights 103, air-to-ground fire 42, ground fire 55, ground explosions 39, rockets 4, balloons 11, chemical laying 54, bombing 36, unidentified objects 7.

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One of the best known forms of harassment available to the USSR is close maneuvering of aircraft in the corridors, using locally based aircraft. Operational airfields in proximity to the corridors, their identification, and users are depicted on the accompanying map. In addition to reconnaissance and support units, 18 Soviet regiments of well-trained fighter and bomber crews are deployed in East Germany. Supplementing the Soviet strength is the East German Air Force consisting of 6 jet-fighter regiments and other aircraft of support-type whose crews are in various stages of operational readiness. The Soviets have already indicated their readiness to employ buzzing and close flying to harass Western air operations.

Surface-to-air missiles are particularly useful as a psychological weapon. Currently, Soviet missiles are deployed so as to provide coverage of all of the air corridors and the Berlin terminal area. Furthermore, being mobile, missiles now deployed elsewhere could be shifted to provide additional strength in the corridors.

Another form of air harassment potentially as effective as jamming or other types of interference with Western aircraft is the use of the corridors by Soviet flights. Although Soviet aircraft were not specifically barred, the corridors were used almost exclusively by Western aircraft until February 1962.

The USSR has also utilized procedural tactics for purposes of harassment. Among these have been the filing of flight plans in advance of the West, increasing the number of flights in the corridors, and varying flight patterns to establish a basis for a refusal to guarantee the safety of Western flights because of the priorities of Soviet flights. The USSR has demanded that the West should change its corridor procedures by filing flight plans 24 hours in advance, by providing border-crossing times, and by maintaining aircraft within predetermined altitude levels.

Prospects

Recent Soviet tactics seem to be designed to whittle away Western rights and to demonstrate the need for a single air-traffic control, preferably under East German aegis, by establishing the fact that Soviet planes have the legal right to use the corridors at any time without restrictions on the number of flights. Acceptance of the Soviet demands to change procedures would imply that the Western Powers had accepted the existence of a new situation and had acknowledged that upon entering the corridors they had crossed an international border and were seeking permission to use a corridor under Soviet control. The status of flights in the corridors would then have made a complete reversal from Soviet accommodation to Western flights to Western accommodations to Soviet rules.

Aside from building up its own capability to interfere with Western access to West Berlin, the Soviet Union would have set the stage for East German assumption of what could be described to the world as sovereign prerogatives. When the USSR transferred supervision of the boundary between the East and West Zones of Germany to the East German People's Police on 1 February 1950, it laid the framework for a wide variety of East German harassments and encroachments on the principle of free movement of Germans between East and West Germany, a principle provided for in the quadripartite Agreements of New York and Paris in 1949. All civil passenger and freight traffic on surface routes is now subject to East German customs and immigration control. Recent publications and official statements have indicated that East Germany now intends to exert control over air traffic also. In addition, Soviet statements have indicated that, following the signing of a peace treaty with East Germany, the USSR intends to relinquish to the East Germans its obligations under the Four Power Agreements concerning the movement of troops and material of the Western occupation forces to and from West Berlin as well as Soviet representation in BASG.

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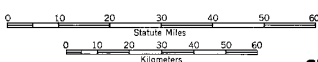
AIR ACCESS TO BERLIN

WESTERN ACCESS ROUTES
 Road ———— Railroad ————
 Autobahn ———— Air corridor ————

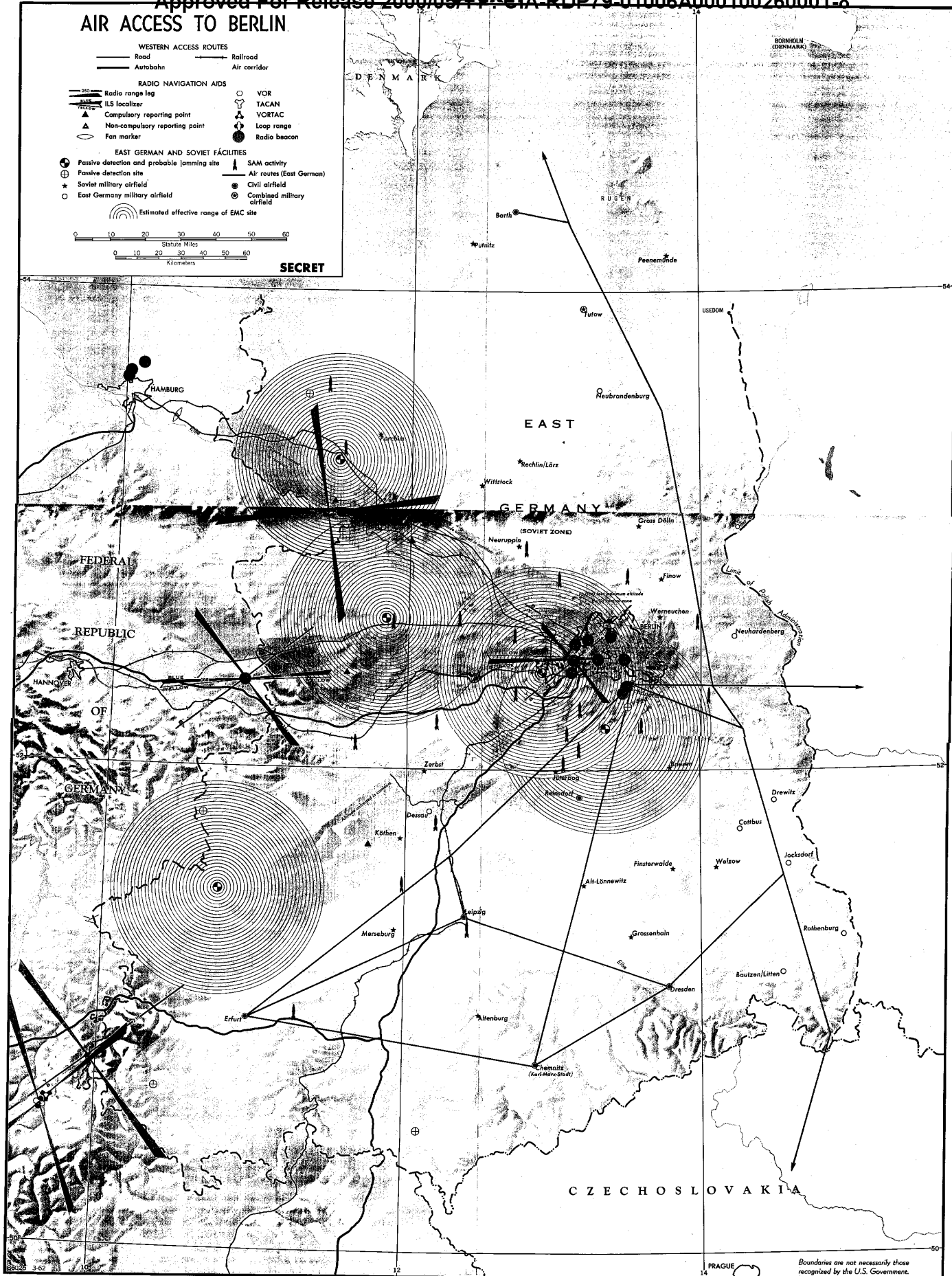
RADIO NAVIGATION AIDS
 --- Radio range leg
 --- ILS localizer
 --- Compulsory reporting point
 --- Non-compulsory reporting point
 --- Fan marker

VOR
 TACAN
 VORTAC
 Loop range
 Radio beacon

EAST GERMAN AND SOVIET FACILITIES
 --- Passive detection and probable jamming site
 --- SAM activity
 --- Air routes (East German)
 --- Civil airfield
 --- Combined military airfield
 --- East Germany military airfield
 --- Estimated effective range of EMC site



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In June 1961 the East Germans quietly published a decree known as the "Law of 1 August," which could play a significant role in any renegotiation of air access. It requires foreign aircraft to register with an East German air-safety center upon crossing the East German boundary. Western agreement to give the time of border crossing or border-beacon crossing (which could be equated with border crossing) might be interpreted as complying with East German legislation. The law further limits the use of radio equipment in foreign aircraft over East Germany to that based on reciprocity, agreements, or permission of the Ministry of Post and Communications and requires that the radio equipment be approved by this ministry. Radio communications must be limited to messages involving flight safety. This law could form the basis for East German interference with Western air communication and for Soviet insistence on the inclusion of East Germany in any negotiations on air access.

In the field of electronic warfare the USSR has recently assigned East Germany a more active role. This action may be related to East German claims to the right to control the entry of civil aircraft into Berlin and, after the completion of the peace treaty with the USSR, the right to control all access to Berlin.

The East Germans are pushing plans to develop Schoenefeld as the main Berlin airport, to assign it a monopoly on long-distance air routes, and to relegate Tempelhof to the status of a secondary field serving only short-distance traffic. The Soviets could offer guarantees of Western access in return for the transfer of air-traffic control from Tempelhof airport to Schoenefeld. Traffic utilizing Schoenefeld, however, is subject to customs and immigration controls, and thus if the East Germans could divert traffic to Schoenefeld they could control it.

In developing Schoenefeld the East Germans have recently modernized transportation facilities for airlines to East Berlin and have developed a system of international air routes on which Schoenefeld is either a stop or a terminal. Bulgarian, Czechoslovakian, Hungarian, Polish, Rumanian, and Soviet airlines have about 21-1/2 flights scheduled into Schoenefeld each week, and the East German airline has 10-1/2 flights scheduled out from Schoenefeld each week. Schoenefeld is a stop on both of the scheduled internal routes: Berlin--Karl-Marx-Stadt and return and Barth-Berlin-Leipzig-Erfurt-Dresden and return.

The USSR has provided itself and East Germany with a broad basis for harassment of Western access to Berlin. These tactics are well suited to bringing pressure on the West to discuss not only the question of air access but the larger political questions such as of the status of West Berlin and the recognition of East Germany.

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